



FEB 11 1993

ORIGINAL

## MATERIAL SAFETY DATA SHEET

PRODUCT

ACTI-PLUS 2818 MICROBIOCIDAL

SAFETY HEALTH AND  
ENVIRONMENTAL AFFAIRS

FEB 11 1993

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

## SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: ACTI-PLUS 2818 MICROBIOCIDAL

DESCRIPTION: Aqueous solution of sodium hypochlorite, sodium hydroxide and sodium salts

NFPA 704M/HMIS RATING: 3/3 HEALTH 0/0 FLAMMABILITY 0/0 REACTIVITY 0 OTHER  
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

## SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 14 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX. %
Sodium hypochlorite	7681-52-9	8.34
Sodium hydroxide	1310-73-2	1-10

## SECTION 3 PRECAUTIONARY LABEL INFORMATION

DANGER: Corrosive. Causes severe eye and skin injury. Harmful if inhaled. Do not get in eyes, on skin or on clothing. Wear goggles and face shield and rubber gloves when handling.

Remove and wash contaminated clothing before reuse. Wash thoroughly after handling.

## SECTION 4 FIRST AID INFORMATION

EYES: Immediately flush for at least 15 minutes while holding eyelids open. Call a physician at once.

SKIN: Immediately wash with soap and plenty of water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation persists.

INGESTION: Drink large quantities of milk or gelatin solution, or if these are not available, drink large quantities of water. Do not give vinegar or other acids. Do not induce vomiting. Call a physician at once. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.



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### SECTION 4 FIRST AID INFORMATION

( CONTINUED )

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

### SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin, Inhalation

EYE CONTACT: Corrosive to the eyes with possible permanent damage depending on the length of exposure and on the first aid action given.

SKIN CONTACT: Corrosive to the skin with possible permanent damage depending on the length of exposure and on the first aid action given.

INGESTION: Can be harmful.

INHALATION: Harmful if inhaled.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

### SECTION 6 TOXICOLOGY INFORMATION

ACUTE TOXICITY STUDIES: Acute toxicity studies have been conducted on this product. The results are shown below.

ACUTE ORAL TOXICITY (ALBINO RATS): LD<sub>50</sub> = Less than 5 g/kg

PRIMARY SKIN IRRITATION TEST (ALBINO RABBITS):

SKIN IRRITATION INDEX DRAIZE RATING: 7.9/8.0

COMMENTS: Corrosive to skin.

PRIMARY EYE IRRITATION TEST (ALBINO RABBITS):

COMMENTS: Corrosive to eyes.

### SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Hazy yellow

FORM: Liquid

ODOR: Slight chlorine

DENSITY:

10.8 lbs/gal.

SOLUBILITY IN WATER:

Completely

SPECIFIC GRAVITY:

1.3 @ 74 Degrees F

ASTM D-1298



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## SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

( CONTINUED )

pH (NEAT) =	13.4	ASTM E-70
FREEZE POINT:	9 Degrees F	ASTM D-1177
FLASH POINT:	Greater than 200 Degrees F (PMCC)	ASTM D-93

NOTE: These physical properties are typical values for this product.

## SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: Greater than 200 Degrees F (PMCC) ASTM D-93

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARD: Contact with reactive metals (eg. aluminum) may result in the generation of flammable hydrogen gas.

## SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid contact with strong acids (eg. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) which can generate heat, splattering or boiling and the release of chlorine gas and toxic fumes.

Avoid contact with organic materials (eg. rags, sawdust, hydrocarbon oils or solvents) and avoid reducing agents (eg. hydrazine, sulfites, sulfides, aluminum or magnesium dust) which can generate heat, fires, explosions and the release of toxic fumes.

Do not mix with any other sodium hypochlorite or bleach product in a bulk tank or mix tank. Resulting mixture will result in a violent exothermic reaction releasing large amounts of nitrogen gas and liquid sulfuric acid.

FEEDING EQUIPMENT: Avoid aluminum, brass, nickel pump parts, or feeding equipment.

STORAGE: Containers exposed to direct sunlight or heat may result in vapor pressure buildup. Sodium hypochlorite releases chlorine when heated above 95 Degrees F. If this should occur, the drum should be properly vented. Protective equipment should be utilized to prevent eye and skin contact or exposures above the TLV for chlorine gas.

Chlorine = TWA 0.5 ppm, STEL 1 ppm ACGIH/TLV  
1.5 mg/m<sup>3</sup>, 2.9 mg/m<sup>3</sup> ACGIH/TLV

Chlorine = TWA 0.5 ppm, STEL 1 ppm OSHA/PEL  
1.5 mg/m<sup>3</sup>, 3 mg/m<sup>3</sup> OSHA/PEL



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## SECTION 9 REACTIVITY INFORMATION

( CONTINUED )

**THERMAL DECOMPOSITION PRODUCTS:** In the event of combustion NO<sub>x</sub>, SO<sub>x</sub>, and chlorine may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

## SECTION 10 PERSONAL PROTECTION EQUIPMENT

**RESPIRATORY PROTECTION:** If it is possible to generate significant levels of vapors or mists, a NIOSH approved or equivalent respirator is recommended.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure-demand, self-contained breathing apparatus is recommended.

**VENTILATION:** General ventilation is recommended.

**PROTECTIVE EQUIPMENT:** Wear gloves, boots, apron and a face shield with chemical splash goggles. A full slicker suit is recommended if gross exposure is possible.

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

## SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)

### SPILL CONTROL AND RECOVERY:

**Small liquid spills:** Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 14.

**Large liquid spills:** Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 14.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 10.

This pesticide is toxic to fish. Do not discharge effluent containing this



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## SECTION 11 SPILL AND DISPOSAL INFORMATION

( CONTINUED )

product into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Apply this pesticide only as specified on the label.

**DISPOSAL:** If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D002.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL:

**METAL CONTAINERS:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by other procedures approved by state and local authorities.

**PLASTIC CONTAINERS:** Do not reuse empty container. Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## SECTION 12 ENVIRONMENTAL INFORMATION

### AQUATIC DATA:

96 hour static acute LC<sub>50</sub> to Bluegill Sunfish = 220 ppm

96 hour no observed effect concentration is 56 ppm based on no mortality or abnormal effects.

96 hour static acute LC<sub>50</sub> to Rainbow Trout = 75 ppm

96 hour no observed effect concentration is 56 ppm based on no mortality or abnormal effects.



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### SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - CORROSIVE LIQUID, N.O.S.  
CORROSIVE MATERIAL UN 1760  
CONTAINS - SODIUM HYPOCHLORITE

### SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

#### FEDERAL REGULATIONS:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

Sodium hypochlorite - Corrosive, strong oxidizing agent  
Sodium hydroxide - Corrosive

Sodium hydroxide = Ceiling 2 mg/m<sup>3</sup> ACGIH/TLV

Sodium hydroxide = Ceiling 2 mg/m<sup>3</sup> OSHA/PEL

CERCLA/SUPERFUND, 40 CFR 117, 302:

This product contains sodium hypochlorite, a Reportable Quantity (RQ) substance and if 1,200 pounds of product are released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D. C. (1-800-424-8802).

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986  
(TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):

Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

XX Immediate (acute) health hazard  
-- Delayed (chronic) health hazard  
-- Fire hazard  
-- Sudden release of pressure hazard  
-- Reactive hazard

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):



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## SECTION 14 REGULATORY INFORMATION

( CONTINUED )

This product does not contain ingredients on the List of Toxic Chemicals.

### TOXIC SUBSTANCES CONTROL ACT (TSCA):

The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

### FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA):

EPA Reg. No. 1706-171.

This product is registered for use as a microorganism control chemical used in industrial recirculating cooling water tower systems, brewery pasteurizers, cooling ponds and decorative fountains. In all cases follow instructions on the product label.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:  
Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15/  
formerly Sec. 307, 40 CFR 116/formerly Sec. 311:

This product contains the following ingredients covered by the Clean Water Act:

Sodium hypochlorite - Section 311

Sodium hydroxide - Section 311

CLEAN AIR ACT, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments):  
This product does not contain ingredients covered by the Clean Air Act.

### STATE REGULATIONS:

#### CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals which require warning under California Proposition 65.

#### MICHIGAN CRITICAL MATERIALS:

This product contains the following substance(s) identified on the Michigan Critical Materials Register:

Sodium hypochlorite

### STATE RIGHT TO KNOW LAWS:

This product is a registered biocide and is exempt from State Right to Know Labeling Laws.

### INTERNATIONAL REGULATIONS:



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## SECTION 14 REGULATORY INFORMATION

( CONTINUED )

This is not a WHMIS controlled product under The House of Commons of Canada Bill C-70.

## SECTION 15 ADDITIONAL INFORMATION

The TLV for sodium hydroxide is only applicable if aerosol or mist of product is generated.

## SECTION 16 USER'S RESPONSIBILITY

information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

## SECTION 17 BIBLIOGRAPHY

ANNUAL REPORT ON CARCINOGENS, U.S. Department of Health and Human Services, Public Health Service, PB 33-135855, 1983.

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## SECTION 17 BIBLIOGRAPHY

( CONTINUED )

Title 29 Code of Federal Regulations Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS IN THE WORKROOM ENVIRONMENT WITH INTENDED CHANGES, American Conference of Governmental Industrial Hygienists, OH.

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